REMARKS

Claims 1-10 and 13-30 are allowable

Regarding the rejection of claims 1-10 and 13-30 under 35 U.S.C. § 103(a) over RFC 2516 in view of Iwakata (US Pub. 2002/0095299) on page 2 of the Office Action, claims 1 and 6 have been amended to overcome these rejections. Claim 1 has been amended to include the element "generating a device identifier code that specifically identifies a product model of a customer premises equipment device in response to receiving a point-to-point over Ethernet (PPPoE) packet communicated over the distributed network." Claim 1 as amended further recites the element "broadcasting a point-to-point over Ethernet (PPPoE) active discovery initiation (PADI) packet, wherein the PPPoE active discovery initiation (PADI) packet includes a tag, wherein the tag is based on the device identifier code." These elements are not taught or suggested by RFC 2516 or Iwakata. Furthermore, these elements are not taught or suggested by a combination of the two references.

RFC 2516 discloses a standard method for transporting multiprotocol datagrams over point-to-point links. At page 2 of the Office Action, it is stated that "RFC 2516 teaches generating a device identifier code in response to receiving a point-to-point over Ethernet (PPPoE) packet communicated over the distributed network." The Office Action further states that the "device identifier code" disclosed in RFC 2516 is the "Ethernet MAC address of the source device." Claim 1, as amended, recites that the device identifier "specifically identifies a product model of a customer premises equipment device." The Ethernet MAC address cited by the Office Action does not specifically identify a product model of a customer premises equipment device. Furthermore, as stated in the Office Action at p. 3, RFCA 2516 does not disclose a tag included in a PADI packet, wherein the tag is based on the device identifier code. Accordingly, RFC 2516 does not teach or suggest each and every element of claim 1.

Iwakata discloses a customer information control system for controlling personal information and product identification information for electronic equipment belonging to a customer. The system disclosed by Iwakata includes a client machine belonging to a customer and a host machine that registers customer information. Iwakata [0070]. The client machine

includes a product identification information storing unit and a data transmit/receive unit for sending customer management information to the host machine. Iwakata [0071]. Product identification information is transmitted to the host machine after the host machine or client machine has initiated a communication session. Iwakata [0083]. There is no teaching or suggestion by Iwakata that the client machine generates a device identifier code that specifically identifies a product model of a customer premises equipment device in response to receiving a point-to-point over Ethernet (PPPoE) packet communicated over the distributed network. Iwakata nowhere teaches or suggests the use of Ethernet or PPoE packets for communication between the host and client machines.

Furthermore, Iwakata does not teach or disclose "broadcasting a point-to-point over Ethernet (PPPoE) active discovery initiation (PADI) packet, wherein the PPPoE active discovery initiation (PADI) packet includes a tag, wherein the tag is based on the device identifier code" as recited in claim 1. As noted above, Iwakata does not teach or suggest the use of Ethernet or PPoE packets for communication between the host and client machines. In addition, Iwakata does not disclose embedding product information in an Ethernet packet tag. Instead, Iwakata discloses that "personal information is combined with the read out product information as a set of customer management information CMI which is sent to the host machine." Iwakata [0087]. Nowhere does Iwakata teach or suggest placing this information into a PADI packet including a tag.

Accordingly, Iwakata does not teach or disclose at least two elements of claim 1. Furthermore, as explained above, these elements are not taught or disclosed by RFC 2516. Accordingly, the combination of these two references does not teach or suggest each and every limitation of claim 1.

With respect to claims 2-5, Iwakata and RFC 2516 fail to teach or suggest each and every element of these claims, at least by virtue of their dependency from claim 1.

With regards to claim 6, the claim, as amended, recites the following element: "generating a device identifier code based on the tag in response to receiving the PPPoE active discovery packet." Furthermore, claim 6 recites that the tag upon which the device identifier code is based "specifically identifies a product model of a customer premises equipment (CPE)

device." As discussed above with respect to claim 1, neither RFC 2516 nor Iwakata teach or suggest a device identifier code that specifically identifies a product model of a customer premises equipment device.

Furthermore, neither RFC 2516 nor Iwakata teach or suggest "sending a point-to-point over Ethernet (PPPoE) active discovery packet, wherein the PPPoE active discovery packet includes a tag that specifically identifies a product model of a customer premises equipment (CPE) device" as recited in claim 6. As stated in the Office Action at p. 4, RFC 2516 fails to specify this element. Furthermore, Iwakata fails to teach or suggest the use of PPPoE active discovery packets including a tag that specifically identifies a product model of a CPE device. As described previously, Iwakata instead discloses combining personal information with product identification information into customer management information CMI and sending this combined information. Accordingly, RFC 2516 and Iwakata, alone or in combination, fail to teach or suggest each and every element of claim 6.

With respect to claims 7-10 and 13-15, claim 7 has been cancelled without prejudice or disclaimer. Claims 8-10 and 13-15 depend from claim 6. Therefore, RCF 2516 and Iwakata do not teach or suggest every element of claims 8-10 and 13-15, at least by virtue of their dependency on claim 6.

In regards to claim 16, the claim includes the following element: "receiving a point-to-point over Ethernet (PPPoE) active discovery packet, wherein the PPPoE active discovery packet includes a tag that identifies a product model of a customer premises equipment device." As described above, neither RFC 2516 nor Iwakata teach or suggest a tag that identifies a product model of a CPE device included in a PPPoE active discovery packet. Accordingly, RFC 2516 and Iwakata fail to teach or suggest every element of claim 16, and claim 16 is also allowable.

Claims 17-20 depend from claim 16. Iwakata and RFC 2516 fail to teach or suggest each and every element of these claims, at least by virtue of their dependency from claim 16.

With respect to claim 21, the claim recites "a module coupled to the network interface, said module configured to transmit a point-to-point over Ethernet (PPPoE) active discovery packet including a tag, the tag comprising a device identifier field that uniquely identifies a CPE

product model." As explained above, neither RFC 2516 nor Iwakata teach or suggest a tag that comprises a device identifier field that uniquely identifies a CPE product model. Furthermore, neither RFC 2516 nor Iwakata teach or suggest a module configured to transmit a PPPoE active discovery packet including such a tag. Therefore, RFC 2516 and Iwakata fail to teach or suggest each and every limitation of claim 21.

Claims 22 and 23 depend from claim 21. Iwakata and RFC 2516 fail to teach or suggest each and every element of these claims, at least by virtue of their dependency from claim 21.

Claim 24 recites "an access concentrator configured to receive an active discovery packet having a tag comprising a device identifier field." The claim further recites that the "device identifier field uniquely identifies a product model associated with the communications device." As set forth above, RFC 2516 and Iwakata each fail to teach or suggest the use of a tag in a discovery packet that uniquely identifies a product model associated with a communications device. Moreover, both RFC 2516 and Iwakata fail to teach or suggest an access concentrator configured to receive an active discovery packet having such a tag. Accordingly, RFC 2516 and Iwakata fail to teach or suggest each and every limitation of claim 24.

Claims 25 and 26 depend from claim 24. Iwakata and RFC 2516 fail to teach or suggest each and every element of these claims, at least by virtue of their dependency from claim 24.

With respect to claim 27, the claim recites the following element "an Ethertype payload field including a host-uniq tag value indicating a model type of a digital switching device." As explained above, neither RFC 2516 nor Iwakata teach or suggest a tag value indicating a model type of a digital switching device. Furthermore, neither RFC2516 nor Iwakata teach or suggest an Ethertype payload field including such a tag. Accordingly, RFC 2516 and Iwakata fail to teach or suggest each and every limitation of claim 27.

Claims 28-30 depend from claim 27. Iwakata and RFC 2516 fail to teach or suggest each and every element of these claims, at least by virtue of their dependency from claim 27. Furthermore, claim 30 recites that "the model type of the digital switching device is a nine bit binary device identifier code associated with customer premises equipment." Neither RFC 2516 nor Iwakata teach or suggest the use of a nine bit binary device identifier code associated with

customer premises equipment. Accordingly, RFC 2516 and Iwakata fail to teach or suggest each and every limitation of claim 30.

Furthermore, with respect to each of the claims discussed above, there is no suggestion in either RFC 2516 or Iwakata to combine the two references. RFC 2516 "provides a standard method for transporting multi-protocol datagrams over point-to-point links." RFC 2516, p.1. Iwakata, in contrast, is concerned with a customer information control system of electronic equipment for controlling personal information and product identifications information of the electronic equipment belonging to a customer. Iwakata, p. 1. Furthermore, the system of Iwakata discloses a simple host to client direct connection. A person of ordinary skill would not look to a multi-protocol datagram standard, such as the point-to-point over Ethernet multi-protocol standard of RFC 2516 to implement a simple data connection between a host and client. As such, Iwakata does not address and its teachings of a single host-client connection are inconsistent with transporting multi-protocol datagrams over point-to-point links. Accordingly, there is no motivation, teaching or suggestion for one of skill in the art to combine the RFC 2516 and Iwakata references.

For at least the reasons set forth above, it is respectfully submitted that the obviousness rejection of claims 1-10 and 13-30 is improper and withdrawal of this rejection therefore is respectfully requested.

Claims 11 and 12 are allowable

Regarding the rejection of claims 11-12 under 35 U.S.C. § 103(a) over RFC 2516 in view of Iwakata as applied to claim 6 above, and further in view of Yusko et al. (US Pub 2004/0071133) on page 11 of the Office Action, claim 6, from which claims 11 and 12 depend, has been amended to overcome these rejections.

Yusko discloses a system for intelligent PPPoE initialization. Yusko, p.1. Yusko fails to teach or suggest sending a point-to-point over Ethernet (PPPoE) active discovery packet, wherein the PPPoE active discovery packet includes a tag that specifically identifies a product model of a customer premises equipment (CPE) device, as recited by claim 6. Furthermore, Yusko fails to teach or suggest generating a device identifier code based on the tag in response to receiving the PPPoE active discovery packet, as recited by claim 6. As explained above, these

elements are also not taught or disclosed by Iwakata or RFC 2516. Accordingly, even if there were a suggestion to combine the Yusko, Iwakata, and RFC 2516 references, the references in combination fail to disclose each and every element of claims 11 and 12, at least by virtue of their dependence on claim 6.

Furthermore, there is no suggestion in the Yusko and Iwakata references that the references should be combined. Yusko discloses a system for intelligent PPPoE initial.zation. Iwakata is concerned with a customer information control system of electronic equipment for controlling personal information and product identifications information of the electronic equipment belonging to a customer. Iwakata, p. 1. Accordingly, each of the cited references addresses a different subject and a different problem. Thus there is no motivation, teaching or suggestion for one of skill in the art to combine the references.

For at least the reasons set forth above, it is respectfully submitted that the obviousness rejection of claims 11 and 12 is improper and withdrawal of this rejection therefore is respectfully requested.

Claims 31 to 35 are allowable

Claims 31 to 35 have been added. Applicants submit that these claims are not taught or suggested by the prior art and are allowable.

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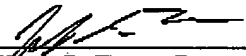
CONCLUSION

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Since all of the independent claims are allowable, all of the dependent claims are likewise allowable.

Applicants respectfully submit that the present application is in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney or agent.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-2469.

Respectfully submitted,

_4-25-2005_____
Date

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PAGE 16/16 * RCVD AT 4/25/2005 6:29:19 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/3 * DNIS:8729306 * CSID:512 327 5452 * DURATION (mm-ss):05-22